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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GRAYBILL, DAVID E

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,597

Applicant(s)

SEKIMOTO, EMIKO

Examiner

David E Graybill

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 14 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 3 recite the limitation "each of the side walls." There is insufficient antecedent basis for this limitation in the claim.

Claims 3 and 5 recite the limitation "said package." There is insufficient antecedent basis for this limitation in the claim.

In the rejections infra, reference labels are generally recited only for the first recitation of identical claim language.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai (5686758).

At column 9, line 64 to column 10, line 62, Arai teaches the following:

1. A package for containing semiconductor element comprising:
a housing 45 having a recess portion 31, 32 for containing a semiconductor element; and a pair of positioning holes 53 and a pair of attaching holes 52 respectively provided at opposed side portions of said housing, wherein a line between said pair of positioning holes and a line between said pair of attaching holes intersect with each other substantially at a center of said package and further wherein the line between the positioning holes is skewed with respect to each of the side walls of the housing and the line between the attaching holes is skewed with respect to each of the side walls.
3. A semiconductor device comprising: a semiconductor element 40; a housing having a recess portion for containing said semiconductor element; and a pair of positioning holes and a pair of attaching holes respectively provided at opposed side portions of said housing; wherein a line between the pair of positioning holes and a line between said pair of attaching holes intersect with each other substantially at a center of said package and further wherein the line between the

positioning holes is skewed with respect to each of the side walls of the housing and the line between the attaching holes is skewed with respect to each of the side walls.

5. A semiconductor device comprising: a semiconductor element; a housing having a recess portion for containing said semiconductor element; a pair of attaching holes provided at opposed side portions of said housing at a surface of said package; and a transparent member 48 for sealing said semiconductor element in said recess portion; wherein said surface of said housing is made to be higher than a top surface of said transparent member.

Note: The illustrated centerlines [not labeled] of Arai do not necessarily coincide with the instant claimed lines, and Arai is not relied on for the teaching of the illustrated centerlines.

To further clarify the teaching wherein the line between the positioning holes is skewed with respect to each of the side walls of the housing and the line between the attaching holes is skewed with respect to each of the side walls, it is noted that the lines are skewed with respect to each of the side walls at least at peripheral wall 35 locations 55 and with respect to each of the diagonal exterior upper side walls [not labeled] of frame 30 as illustrated.

Furthermore, in Figures 4 and 6, Arai teaches wherein the line between the positioning holes [symbolized but not labeled] is skewed with respect to each of the side walls of the housing which are parallel to an x and y axis and the line between one pair of attaching holes [symbolized but not labeled] is skewed with respect to each of the side walls which are parallel to an x and y axis.

To further clarify the teaching of a transparent member, the member inherently allows the passage of radiation; for example, infrared radiation, therefore, it is transparent at least to infrared radiation.

To further clarify the teaching that the surface of the housing is made to be higher than a top surface of the transparent member, it is noted that the scope of the claims is not limited to a particular frame of reference. In addition, the surface of the housing abuts and extends beyond a surface of the transparent member. Therefore, it is inherent that there is a frame of reference wherein the abutting surface of the transparent member is a top surface, and the further extending surface of the housing is made to be higher than the top surface.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai as applied to claims 1, 3 and 5, and further in combination with Kondoh (5448114).

Arai does not appear to explicitly teach the following:

2. The package according to 1: wherein said semiconductor element is a solid-state imaging element.
4. The semiconductor device according to 3, wherein said semiconductor element is a solid-state imaging element.
6. The semiconductor device according to claim 5, wherein said semiconductor element is a solid-state imaging element.

Nonetheless, at column 3, lines 1-13, Kondoh teaches wherein a semiconductor element 1 is a solid-state imaging element, and a transparent member 21. Moreover, it would have been obvious to combine the product of Kondoh with the product of Arai because it would provide the semiconductor element of Arai and a transparent member.

Applicant's amendment and remarks filed 2-10-3 have been fully considered, are addressed in the rejection supra, and are further addressed infra.

Applicant contends that Arai does not teach a transparent member for sealing the semiconductor element. This contention is respectfully traversed because, as explicitly and clearly recited in the rejection, Arai teaches this limitation.

Also, applicant asserts with regard to claim 5 that Arai does not teach "wherein the surface of the package is made to be higher than a top surface of the transparent member as claimed." This assertion is respectfully deemed unpersuasive because the scope of claim 5 is not so limited, and Arai is not applied to the rejection for this teaching. To further clarify, claim 5 is not limited to a package.

The art made of record and not applied to the rejection is considered pertinent to applicant's disclosure. It is cited primarily to show inventions similar to the instant invention.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action

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is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any telephone inquiry of a general nature or relating to the status (MPEP 203.08) of this application or proceeding should be directed to Group 2800 Customer Service whose telephone number is 703-306-3329.

Any telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (703) 308-2947. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.

The fax phone number for group 2800 is 703/308-7722.



David E. Graybill
Primary Examiner
Art Unit 2827

D.G.
22-May-03